

**Roberts, Paul**

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**From:** Nichols, Christopher  
**Sent:** Wednesday, June 04, 2003 5:13 PM  
**To:** Roberts, Paul  
**Subject:** RE: Search Request

Dear Paul Roberts,

What you have is a "functionalized" medical device.

The inventors have taken organic/inorganic materials with a known structure and "functionalized" it with growth factors. For growth factors use:

530/300,350 and keywords like "neurotrophin" "FGF" "NGF" "FK506" "immunophilins"

Also try 514/2 using "nerve" AND "conduit"

In addition, 424/198.1 using "growth factor"

Also, US 5026381 maybe good...

Here are some PubMed References.

**The role of conduits in nerve repair: a review.**

**Doolabh VB, Hertl MC, Mackinnon SE.**

Rev Neurosci 1996 Jan-Mar;7(1):47-84

**A new nerve guide conduit material composed of a biodegradable poly(phosphoester).**

**Wang S, Wan AC, Xu X, Gao S, Mao HQ, Leong KW, Yu H.**

Biomaterials 2001 May;22(10):1157-69

Finally, if possible Restriction between the three:

1. A polyphosphoester is a compound containing O-R-O-C-O-BenzeneRing-C-O-O-R-O-P-O-R (???)
2. A gene delivery agent which comprises a complex of dna and a cationic polymer or lipid. (514/2)
3. neurotrophic protein or a neuro-active neural fibre eliciting molecule. (424/198.1 or 530/300)

All three are in different classes and represent three distinct and independent search fields.

Good luck,  
CJN

-----Original Message-----

**From:** Roberts, Paul  
**Sent:** Wednesday, June 04, 2003 4:52 PM  
**To:** Nichols, Christopher  
**Subject:** FW: Search Request

-----Original Message-----

**From:** Kunz, Gary  
**Sent:** Wednesday, June 04, 2003 4:50 PM  
**To:** Roberts, Paul  
**Subject:** RE: Search Request

No, but Chris Nichols probably can.

-----Original Message-----

**From:** Roberts, Paul  
**Sent:** Wednesday, June 04, 2003 3:50 PM  
**To:** Kunz, Gary  
**Subject:** RE: Search Request

I don't know of any related patents in this area. Can you suggest one?

Paul Roberts  
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-----Original Message-----

**From:** Kunz, Gary  
**Sent:** Wednesday, June 04, 2003 3:46 PM  
**To:** Roberts, Paul  
**Subject:** RE: Search Request

The gene delivery part would be classified in 514/44. I suggest that you speak to Chris Nichols to get more info. at 305-3955. Also, I would suggest that you pull up a related patent in this area to see where others have classified it.

Gary

-----Original Message-----

**From:** Roberts, Paul  
**Sent:** Wednesday, June 04, 2003 3:17 PM  
**To:** Kunz, Gary  
**Subject:** Search Request

I am from art unit 3731. So far I have had no success finding the following device. The independent claim recites a tube (nerve guide conduit) comprising a poly(phosphoester). A polyphosphoester is a compound containing

O-R-O-C-O-BenzeneRing-C-O-O-R-O-P-O-R

Additionally, the guide contains:

a poly(phosphoester) with a porosity of 8% and a molecular weight of about 16000. The polymer contains polyethlenimine, poly-L-lysine, or chitosan, or doleoyl phosphatidylethanolamine.

It contains a gene delivery agent which comprises a complex of dna and a cationic polymer or lipid. It also contains an encoding of neurotrophic protein or a neuro-active neural fibre eliciting molecule.

I would like to know any subclasses to search or alternate art units to contact regarding this device.

Thank you,  
Paul Roberts